IDAHO
Water Resource Board

Idaho Water Transactions Program
2015 Progress Report

Idaho Water Transactions Program Overview

With committed partners in the Upper Salmon River Basin and Teton River Basin, the Idaho Water Resource Board (IWRB) implements the Idaho Water Transactions Program. The program restores water to Idaho streams and rivers, revitalizing the habitats that imperiled salmon, steelhead, and native trout need for survival and recovery, and building resilience in tributaries facing a changing climate, while protecting the local agricultural community. Water transactions provide an effective and appropriate response to address inadequate stream flows, often cited as a key factor limiting the productivity of both anadromous and resident fish species.

Funding for water transactions comes from the Bonneville Power Administration (BPA) through participation in the Columbia Basin Water Transactions Program (CBWTP) and through the Idaho Governor's Office of Species Conservation (OSC) as part of the Idaho Fish Accords. Projects are prioritized based on State flow restoration objectives in the 2004 Snake River Water Rights Settlement, habitat restoration objectives in the Idaho Fish Accords, as well as projects that occur in with high priority in the Screening and Habitat Improvement Prioritization for the Upper Salmon Subbasin (SHIPUSS) document prepared by the Upper Salmon Basin Watershed Program (USBWP) technical team.

Transactional Activity

The IWRB currently implements projects in the Upper Salmon River Basin (Administrative Basins 71-75) and the Teton River Basin (Figure 1). Since 2003, the IWRB has completed **88** transactions and has secured the protection of over **650,000 AF** of water in key tributaries (Figure 2). In 2015, the Board will have **139.26 cfs** protected instream for the benefit of Endangered Species Act- listed fish.

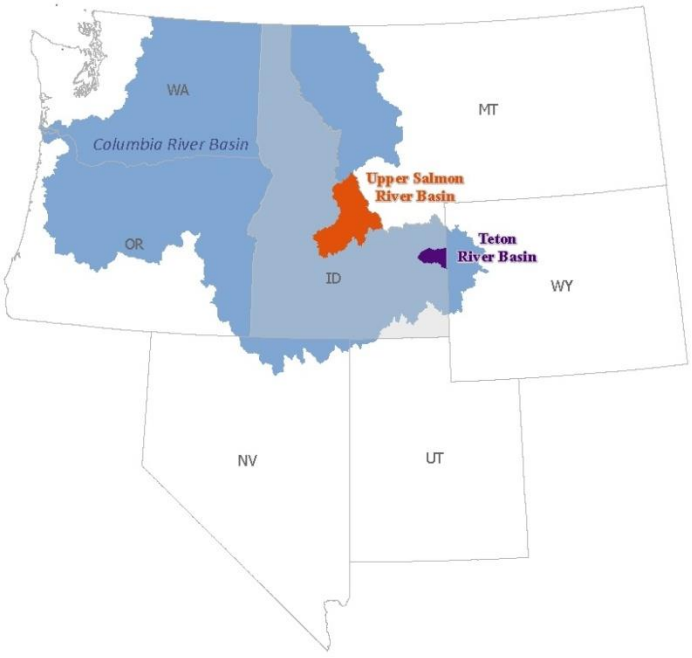

Figure 1. Geographic location of Idaho Water Transaction Program activity in relation to Columbia River Basin.

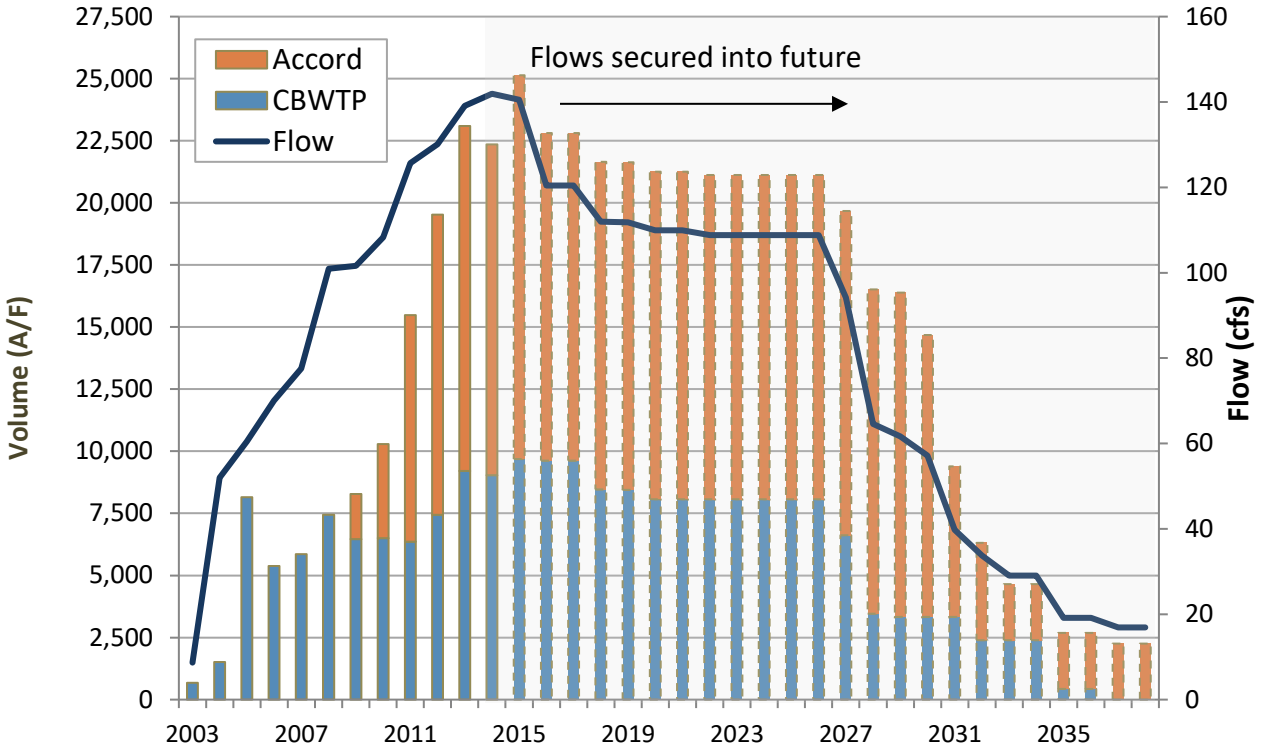

Figure 2. Flow (cfs) and volume (AF) protected instream through the Idaho Water Transactions Program since 2003.

Objective Accountability

The recently prepared Idaho Water Transactions Program Strategic Plan for the Upper Salmon River Basin sets out criteria to measure IWRB performance as it relates to meeting the objectives of the State. The following information summarizes the information available for each criterion.

Lower Lemhi River Flows

The State objective is to permanently protect 35 cfs throughout the irrigation season in the Lemhi River below the L-6 diversion. To date **18.28 cfs** is permanently protected, with short-term agreements protecting the remaining 16.72 cfs in the interim (Figure 3). In 2015, The Water District 74 Watermaster actively curtailed the transaction participants for a total of 52 days and maintained the minimum stream flow (Figure 4), protecting fish passage and habitat through the reach.

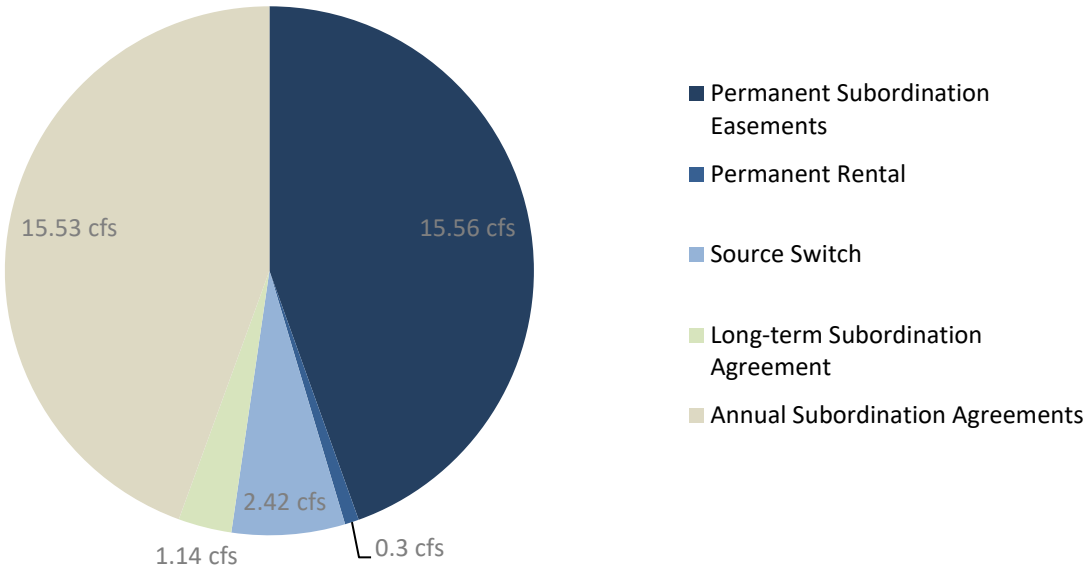

Figure 3. Progress made towards permanent protection of 35 cfs in Lower Lemhi below L-6 diversion.

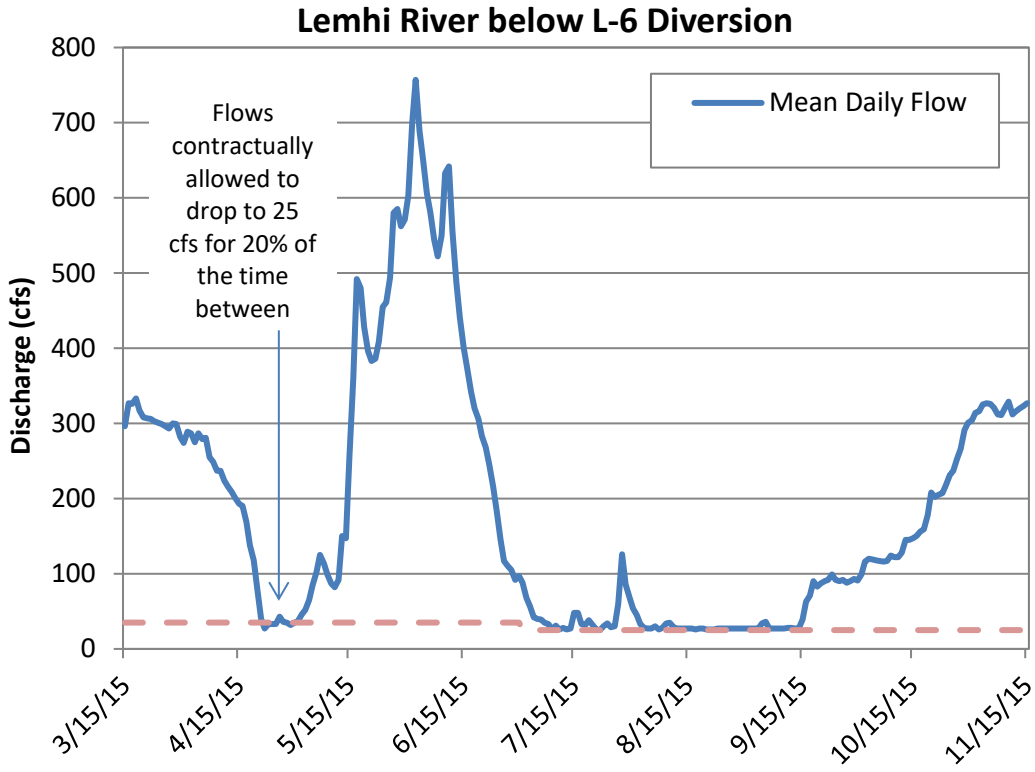

Figure 4. Lower Lemhi River flows at the USGS Gage 13305310

Lemhi River Tributary Reconnects

The State objective is to have 10 high priority tributaries functionally reconnected to the Lemhi River. To date water transactions have contributed to the functional reconnection of **4** high priority tributaries – Big Timber Creek, Canyon Creek, Kenney Creek, and Little Springs Creek. Elimination of a passage barrier is still needed on Big Timber Creek to provide full access past the Big Timber 2 diversion.

2004 Snake River Water Rights Agreement B-List Streams

The State objective is to maintain enough flow in the B-List streams (Goat Creek, Iron Creek, Meadow Creek, Elk Creek in Valley Creek drainage) to meet the flows enumerated in the IWRB minimum stream flow water rights. To date the IWRB has not worked with water users who divert from the B-List streams. Efforts have been focused where there is less complexity (fewer water users) and the expected benefit to fish is greater.

Volume and flow restored –see Figure 2

Stream Miles affected by flow restoration

- Stream reaches with improved flow in the Upper Salmon River Basin - **287.1 miles**
- Stream reaches with improved flow in the Teton River Basin – **28.9 miles**

Improvement in habitat resulting from increased stream flow

Quantitative habitat assessment is being conducted by project partners, most intensively in the Lemhi River Basin. The data and analysis related to habitat changes resulting from increased flow is not currently available. More qualitative examples are obvious improvement in habitat as seen in before and after pictures (Figures 4 and 5).

Figure 4. Bohannon Creek at BHC3 diversion in 2013 (left) and below the diversion in 2014 with a 2 cfs minimum flow (right).

Figure 5. Fourth of July Creek in 2001 prior to water transaction (left) and August 1, 2012 after 9 years of a 2.9 cfs rental (right).

Documented changes in fish distribution, productivity, and survival

Project partners are also collecting biological data in some of the streams with water transactions. The IWRB does not have the capacity to analyze the data in a scientifically rigorous manner, but the following examples show documented changes in streams that have active water transactions.

Figure 6. A fluvial Yellowstone cutthroat trout captured in the upper perennial section of South Leigh Creek, tributary to the Teton River on August 7, 2014 by Mike Lien.

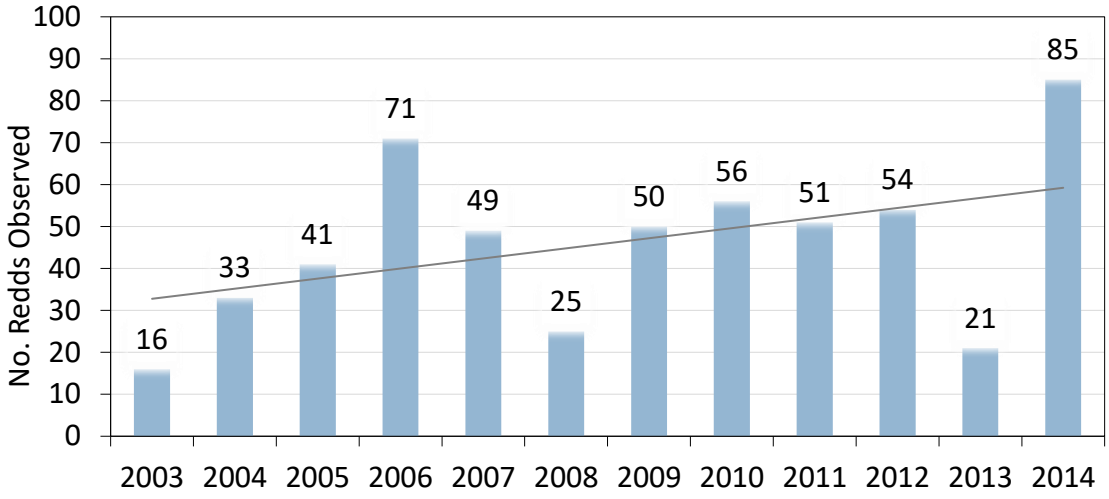

Figure 7. Fluvial bull trout redds (nests) observed in Fourth of July Creek by Idaho Department of Fish and Game.

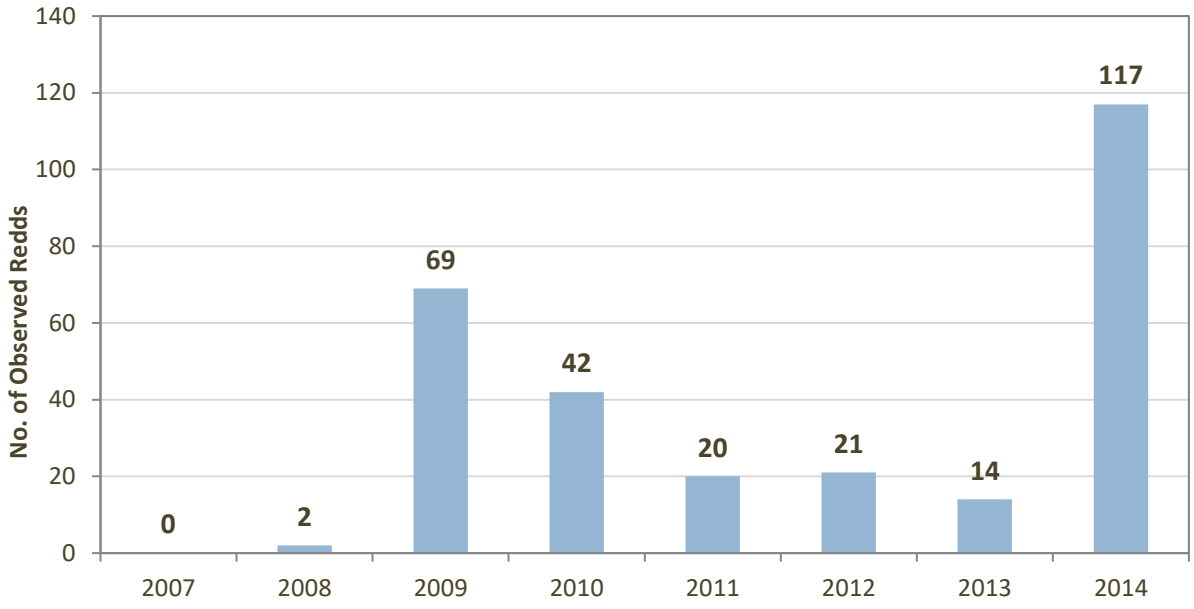

Figure 8. Spring Chinook redds (nests) observed in Patterson Big Springs Creek by Idaho Department of Fish and Game.

Water user and local public interactions

IWRB staff will track the number of water user and public interactions to document the effort expended to work closely with the local communities. This metric has not been collected to date, so numbers are not available.

Transactions in Development

The IWRB has made considerable progress towards the objectives of the State, but flow is still the main factor limiting fish distribution, productivity, and survival in many Upper Salmon and Teton River streams. Board staff will continue to work closely with project partners to develop, implement, and monitor water transactions in prioritized streams.

Current transactions in development include the following:

- Bohannon Creek 3 Diversion Source Switch to Lemhi River
- Fourth of July Creek 3 reduction or elimination of diversion
- Cow Creek Source Switch with potential solar power
- Lower Lemhi Permanent Subordination Easement for 4.32 cfs
- Pole Creek Source Switch and Elimination of Hydropower for 12-18 cfs (Notable water user benefit – the Sawtooth National Recreation Area issued a special use permit authorizing the diversion of water from Pole Creek.)
- Friends of the Teton River Badger Creek Purchase of 0.24 cfs
- Pahsimeroi River and Big Creek lease of ~200 acres
- Bayhorse Creek Split Season Lease
- Pratt Creek Source Switch
- Big Hat Creek and Hat Creek Purchase of 2.13 cfs
- Carmen Creek Barsalou Ditch Source Switch